

# MISSOURI. Conservationist

VOLUME 72, ISSUE 7, JULY 2011 • SERVING NATURE & YOU



# Conservation = Summer Fun

As I write this editorial, summer is upon us. The cycle of the four seasons, and the notable vast diversity each season brings, makes Missouri a great place to live. This fact combined with our high-

quality and abundant natural resources including productive water, healthy forests, abundant fish and wildlife, and rich soils provides almost unlimited opportunities for outdoor activities.

The Conservation Department works to fulfill Missourians' expectations for a wide array of forest, fish and wildlife-related services. Some examples include:

- » Farm and forest services available for private landowners.
- » Fishing and hunting seasons among the most popular and successful in the nation.
- » About 800,000 acres of conservation land and water available for public use.
- » Conservation education available for all ages and abilities.
- » Statewide network of nature centers serving urban and rural citizens.

As summer sets in, I challenge all Missourians to spend time afield with family and friends. From grass-covered prairies to streams and ponds, to rugged forest land to big rivers and lakes, wherever you live, Missouri offers adventures both close to home and in remote corners.

The Department's Community Assistance Program (CAP) was initiated in 1980 to provide close-to-home fishing and outdoor opportunities in communities across the state. Through this program, the Department enters into agreements with cities and counties. Under these cooperative agreements, the Department provides fisheries management (including appropriate stocking, habitat improvement and special regulations) on lakes and ponds, enforcement of wildlife and area use regulations,



and assists with development of facilities for area users. The partners, in return, assist with facilities development, allow free public use of the area, and provide routine maintenance. There are currently 115 CAP locations providing citizens of all ages close-to-home outdoor opportunities in a cost effective way.

For citizens seeking options involving more remote locations, consideration should be given to Missouri's designated natural areas. These sites are known for their outstanding biological and geological features—offering diverse habitat types showcasing native plants and animals. Providing an array of recreational opportunities including hiking, birding, nature study and photography, as well as hunting and fishing, natural areas are worth visiting. The Department has a

publication entitled *Discover Missouri Natural Areas — A guide to 50 great places* that identifies and highlights some of the best natural areas within specific regions of our state.

To find fishing and outdoor opportunities throughout the state, visit our online atlas at [mdc.mo.gov/node/8911](http://mdc.mo.gov/node/8911). To find Community Assistance Program locations near you contact a regional conservation office (phone numbers available on Page 3).

Wishing you a summer filled with enjoyable outdoor memories.

Robert L. Ziehmer, director

---

**OUR MISSION:** *To protect and manage the fish, forest and wildlife resources of the state; to serve the public and facilitate their participation in resource management activities; and to provide opportunity for all citizens to use, enjoy and learn about fish, forest and wildlife resources.*

---



## FEATURES

- 8 **The Royal Kingbirds of Kauffman Stadium**  
*by Larry Rizzo, photos by Noppadol Paothong*  
Why kingbirds love America's favorite pastime, too.
- 14 **Opening the Outdoors to Everyone**  
*by Brandon Pope*  
The importance of conservation education for urban youth.
- 18 **The Wright Quail Management**  
*by Jeff Esely, photos by David Stonner*  
Bold techniques lead to big results.
- 22 **Modern Day Treasure Hunting**  
*by Heather Bodendieck, photos by David Stonner*  
A geocaching adventure

Cover: Kingbird by Noppadol Paothong  
Above: Kingbird eating a praying  
mantis by Noppadol Paothong

---

## MISCELLANY

- 2 Letters  
4 News & Events  
5 Ombudsman  
28 Plants & Animals  
30 Places To Go  
32 Hunting and Fishing Calendar  
32 Contributors  
33 Agent Notes



## ROADRUNNERS

Several days ago, I looked out one of our north-facing windows here in Moberly. Just below the window and grazing along on the ground was the oddest bird I had ever seen. It had a long beak like a woodpecker, but I couldn't tell from my viewing level if there was any red on the bird's head. It had a mostly white body with brown stripes, long legs and, I thought, a not-so-long tail. Its tufted head feathers were laying flat.

I told my husband and a couple of friends about sighting this bird. Then, yesterday, I received the June issue of the *Missouri Conservationist*. Imagine my surprise when I

flipped through this favored magazine and spotted my bird, except with a longer tail [*The Adaptable Roadrunner*; Page 22]. The roadrunner is the closest of any bird I've found to be the one I saw, and how fortunate I was to find it in your magazine so close to the date of my sighting. It seems we may have a roadrunner or two as far north as Moberly.

Thank you for your excellent magazine and although "my" bird did not have a tail as long as the one(s) in your pictures, I do believe it is a roadrunner. I will keep my eyes peeled for this bird again and do hope I can shoot a picture of it

this time. Unfortunately, we have a huge hawk that patrols our property, too.

**Bonnie Bohanon, Moberly**

The story on the roadrunner was very interesting to my family. We have had a roadrunner nesting in our yard for the past three years, and it is so amazing to watch. Our dog is afraid of the bird because it is so big. This year we have seen two other roadrunners down the road from us. They truly are a unique bird.

**Charlotte Kimball, West Plains**

## RED-HEADED CHICKS

I live a few miles north of Augusta and we see a pileated woodpecker once every couple of weeks. It comes to the woodpecker feeder, but is very skittish. Any movement will scare it off to the trees nearby, but I can often still see it there as well. They are magnificent birds. Thanks, Danny, for your article and picture of the young ones! ["Plants & Animals"; May] I would love to see the rest of the pictures that you didn't get to publish!

**Randy Stone, Augusta**

## BIG HOPES, LITTLE BIRDS

In your May issue there was an article titled *Where have the quail gone?* On April 28, the day before this issue came in the mail, I saw what I at first thought was a dove walking down our driveway. Looking closer, I saw that it was indeed a quail. I called to my husband to come look because, even though I was sure that's what it was, I couldn't really believe it. It was right in the middle of a street in Springfield, not in a wooded area. I was so surprised I didn't even think to get my camera, I just wanted to keep looking at it. My thoughts are that it must have been blown into Springfield by the storms that week.

I took my 10-year-old grandson, Brayden, out to see it because he had never seen one before. I told him how it used to be that you could see them all the time out in the country, but not any more. So I was really glad to see the article and we read it together. It gave us hope that there will be quail in the future because of all of the efforts listed in the article. We just want to say thanks to everyone, and please keep up the good work.

**Donna Hall, via Internet**



### Reader Photo

### SWAMP SOLITUDE

John Sawhill of Ballwin captured this image of Mingo National Wildlife Refuge while canoeing on the area. "After reading about Mingo in the *Missouri Conservationist*, my brother and I packed up the canoe and drove down there," said Sawhill. "We go down to Mingo on a regular basis now. It's not like we catch monster bass, but the beauty and the solitude of the place keep us coming back. We catch quite a few bluegill on crickets and bobber, but have yet to land one of the elusive bowfins." Sawhill adds that he and his brother use their canoes and kayaks to venture deep into wilderness areas. Sawhill also canoes, fishes and hikes on several conservation areas throughout the state. To find similar scenery and fishing opportunities in the Southeast region, or anywhere in the state, visit [mdc.mo.gov/node/8911](http://mdc.mo.gov/node/8911).



## DEPARTMENT HEADQUARTERS

Phone: 573-751-4115

Address: PO Box 180,  
Jefferson City 65102-0180

## REGIONAL OFFICES

Southeast/Cape Girardeau: 573-290-5730

Central/Columbia: 573-884-6861

Kansas City: 816-655-6250

Northeast/Kirksville: 660-785-2420

Southwest/Springfield: 417-895-6880

Northwest/St. Joseph: 816-271-3100

St. Louis: 636-441-4554

Ozark/West Plains: 417-256-7161

## SUBSCRIPTIONS

Phone: 573-522-4115, ext. 3856 or 3249

Address: Circulation, PO Box 180, Jefferson City 65102-0180

E-mail: [Subscriptions@mdc.mo.gov](mailto:Subscriptions@mdc.mo.gov)

**Conservationist online services:** Subscribe to the magazine, update your mailing address, or sign up to receive an e-mail when the latest issue is available online at [mdc.mo.gov/node/9087](http://mdc.mo.gov/node/9087)

**Cost of subscriptions:** Free to Missouri households

Out of State \$7 per year

Out of Country \$10 per year

Please allow 6–8 weeks for delivery of your first issue.

## OMBUDSMAN QUESTIONS

Phone: 573-522-4115, ext. 3848

Address: Ombudsman, PO Box 180,  
Jefferson City 65102-0180

E-mail: [Ombudsman@mdc.mo.gov](mailto:Ombudsman@mdc.mo.gov)

## EDITORIAL COMMENTS

Phone: 573-522-4115, ext. 3847 or 3245

Address: Magazine Editor, PO Box 180,  
Jefferson City 65102-0180

E-mail: [Magazine@mdc.mo.gov](mailto:Magazine@mdc.mo.gov)

## READER PHOTO SUBMISSIONS

Address: Missouri Conservationist, Reader Photo,  
PO Box 180, Jefferson City 65102-0180

E-mail: [Readerphoto@mdc.mo.gov](mailto:Readerphoto@mdc.mo.gov)

**Don't Get Scammed**—Do not give any information to anyone who comes to your door soliciting *Conservationist* subscriptions. It could be a scam. Get as much information as possible and then contact your regional Missouri Department of Conservation office, police department or the Missouri Consumer Protection Hotline at 1-800-392-8222.

## MDC Online

Discover more about nature and the outdoors through these sites.

Blog: [mdc.mo.gov/node/109](http://mdc.mo.gov/node/109)

Facebook: [www.facebook.com/MDOnline](http://www.facebook.com/MDOnline)

Flickr: [www.flickr.com/photos/mdc\\_online](http://www.flickr.com/photos/mdc_online)

Kids' site: [www.XplorMo.org](http://www.XplorMo.org)

Missouri Conservationist: [mdc.mo.gov/node/83](http://mdc.mo.gov/node/83)

Missouri Department of Conservation: [mdc.mo.gov](http://mdc.mo.gov)

Nature Shop: [www.mdcNatureShop.com](http://www.mdcNatureShop.com)

Twitter: [www.twitter.com/MDC\\_Online](http://www.twitter.com/MDC_Online)

[www.twitter.com/Nature\\_Videos](http://www.twitter.com/Nature_Videos)

YouTube: [www.youtube.com/user/moconservation](http://www.youtube.com/user/moconservation)

# MISSOURI. Conservationist

**GOVERNOR** Jeremiah W. "Jay" Nixon

## THE CONSERVATION COMMISSION

Don C. Bedell

Don R. Johnson

William F. "Chip" McGeehan

Becky L. Plattner

**Director** Robert L. Ziehmer

**Deputy Director** Thomas A. Draper

**Deputy Director** Tim D. Ripperger

**General Counsel** Tracy E. McGinnis

**Internal Auditor** Nancy R. Dubbert

## DIVISION CHIEFS

**Administrative Services** Carter Campbell

**Design and Development** Jacob Careaga

**Fisheries** Chris Vitello

**Forestry** Lisa G. Allen

**Human Resources** Thomas Neubauer

**Outreach & Education** Mike Huffman

**Private Land Services** Mike Hubbard

**Protection** Larry D. Yamnitz

**Resource Science** Mike Kruse

**Wildlife** DeeCee Darrow

## CONSERVATIONIST STAFF

**Editor In Chief** Ara Clark

**Managing Editor** Nichole LeClair Terrill

**Art Director** Cliff White

**Staff Writer** Bonnie Chasteen

**Staff Writer** Jim Low

**Photographer** Noppadol Paothong

**Photographer** David Stonner

**Designer** Stephanie Thurber

**Artist** Mark Raihel

**Circulation** Laura Scheuler

The *Missouri Conservationist* (ISSN 0026-6515) is the official monthly publication of the Missouri Department of Conservation, 2901 West Truman Boulevard, Jefferson City, MO (Mailing address: PO Box 180, Jefferson City, MO 65102.) Subscription free to adult Missouri residents; out of state \$7 per year; out of country \$10 per year. Notification of address change must include both old and new address (send mailing label with the subscriber number on it) with 60-day notice. Preferred periodical postage paid at Jefferson City, Mo., and at additional entry offices. Postmaster: Send correspondence to Circulation, PO Box 180, Jefferson City, MO 65102-0180. Phone: 573-522-4115, ext. 3856 or 3249. Copyright © 2011 by the Conservation Commission of the State of Missouri.

Equal opportunity to participate in and benefit from programs of the Missouri Department of Conservation is available to all individuals without regard to their race, color, national origin, sex, age or disability. Questions should be directed to the Department of Conservation, PO Box 180, Jefferson City, MO 65102, 573-751-4115 (voice) or 800-735-2966 (TTY), or to the U.S. Fish and Wildlife Service Division of Federal Assistance, 4401 N. Fairfax Drive, Mail Stop: MBSP-4020, Arlington, VA 22203.

Printed with soy ink

## Kids' Magazine



Six times a year we'll bring you eye-popping art, photos and stories about Missouri's coolest critters, niftiest natural places, liveliest outdoor activities and people who've made a living in the wild. Come outside with us and **XPLOR!**

Ages: 7–12

Missouri residents: FREE (one subscription per household)

Out of state: \$5 per year; Out of country: \$8 per year

A guardian's name and address is required with the subscription.

Please allow 6–8 weeks for delivery of your first issue.

**SIGN UP  
NOW!**

[www.XplorMo.org](http://www.XplorMo.org)

573-522-4115, ext. 3856 or 3249



# NEWS & EVENTS



## Conservation Makes Great Smallmouth Bass Fishing

The Conservation Department is tagging 1,600 legal-sized smallmouth bass on five rivers in southern Missouri as part of a research project. Anglers who catch tagged bass can earn \$25 or \$75 by reporting their catches to MDC researchers.

MDC biologists are tagging smallmouth bass in the Black River, Castor River, Courtois Creek, Current River and the North Fork of the White River, and will continue tagging during the spring season over the next two years.

According to Fisheries Management Biologist John Ackerson, these types of research studies have been successful with other fish species such as catfish and walleye.

"The research project will help biologists learn more about angler catch rates and fish movement in these rivers," Ackerson said. "Informa-

tion gained from anglers reporting their tagged catches will help us manage this species, which many Missourians love to fish."

He explained that tagged bass do not have to be kept to receive a reward. Anglers may just remove the tag and release the fish. Tags must be returned to the MDC to receive a reward.

To report tagged catches, anglers must call the phone number listed on the tag and provide the following information:

- Tag number
- If the fish was kept or released
- Date of catch
- Total length of fish
- Approximate location of catch

For more information on the research project, contact Ackerson at 471-255-9561, extension 275, or [John.Ackerson@mdc.mo.gov](mailto:John.Ackerson@mdc.mo.gov). — by Joe Jerek

## Protecting Trout With Trout

The Conservation Department's Maramec Spring Fish Hatchery is protecting its trout with more trout. The hatchery, which raises rainbow trout, is trying a new way of preventing parasitic infestation using brook trout.

Rainbow trout, along with several other west-coast fish species, are susceptible to a parasitic copepod called *Salmincola californiensis*. The tiny, shrimplike parasites, which are about the size of a pencil eraser, attach to fishes' gills, where they leave eggs and complete their life cycle.

While the copepods are not a problem in the wild, they can become prolific in hatcheries that raise fish in high-density conditions. The copepods can attach in such high numbers that they weaken the fish, making them more prone to disease, and even causing the fish to suffocate.

According to Maramec Spring Fish Hatchery Manager Wes Swee, the U.S. Food and Drug Administration currently does not recognize any chemical treatments to control parasitic copepods.

A study at a California hatchery concluded that placing brook trout upstream from rainbow trout somehow filters copepod larvae from the water supply, reducing infestation. The reason for this is undetermined. Swee said one theory is that copepod larvae are specific to certain west-coast fishes and cannot complete their life cycle on other species, such as east-coast-native brook trout. According to Swee, the copepods attach to brook trout but do not produce eggs as they do on rainbow trout.

To test the theory on Missouri trout, MDC raised a small number of brook trout at Maramec Spring Fish Hatchery. In June the trout were put in one pool above a pool of copepod-free rainbow trout from another hatchery. If successful, brook trout could be an effective biological control method for



Rainbow trout at Maramec Spring Fish Hatchery

managing parasitic copepods in fish hatcheries.

Biological control methods are not a new concept. In fact, they are preferable when a food product like fish is involved. A comparable biological control method is the use of ladybugs to reduce aphid infestation in gardens.

Although the copepods themselves do not affect a fish's food quality, protecting hatchery-raised rainbow trout from parasites is an effort to ensure the quality of Missouri's trout fishing.

"Controlling the copepods will allow us to continue to stock healthy fish for the public," Swee said. "The long-term goal is to provide Missouri

anglers with healthy, more vigorous and more attractive rainbow trout that will put up a good fight for fishermen."

Rainbow trout is the species most commonly stocked by MDC to provide trout fishing opportunities in designated Missouri waters. A limited number of brown trout, produced in MDC hatcheries, are also stocked in selected waters each year.

"There are no plans to release the brook trout into Missouri waters," Swee said.

For more information on Maramec Spring Trout Park, visit [mdc.mo.gov/node/5816](http://mdc.mo.gov/node/5816).—by Rebecca Maples

## Black Bear Research

Efforts to learn more about Missouri's growing black-bear population has expanded this summer, with researchers studying bears in a 23-county area bounded roughly by Barry, Butler and Franklin counties.

The project kicked off last year with trapping, radio collaring and gathering DNA evidence from bears in southwestern and south-central Missouri. Researchers are trapping and radio-collaring bears and monitoring them over the winter to learn more about bear denning habits.

Another phase of the study involves using



## ASK THE OMBUDSMAN

**Q:** Is it true that daddy-longlegs are highly venomous, but their mouthparts or fangs are too small to allow them to harm humans?

**A:** No, that is a myth. Daddy-longlegs, or harvestmen, are arachnids that are related to spiders, ticks and mites. Unlike spiders, harvestmen do not have any venom glands and they pose no threat to humans, pets, buildings or crops. They do have scent glands and may secrete a foul-smelling fluid when threatened. Feeding on soft-bodied insects and plant juices, they forage mostly at night as both predators and scavengers. During warm periods in the summer, they may be found in groups under eaves on the shady side of buildings. Harvestmen are eaten by large spiders, predatory insects and birds.

**Q:** Can you identify some strange growths that we found in our pond? They are somewhat spherical, sticky and have the texture of firm gelatin. There are tiny black specks all over the outside of them.

**A:** Your description matches that of invertebrate animals called bryozoans. The odd-looking, gelatinous blobs appear in some Missouri lakes, ponds and streams each summer. Worldwide, bryozoans are found on every continent except Antarctica—many live in saltwater

environments. The tiny individuals in a colony are filter feeders, extracting plankton, bacteria and detritus from the water. The colonies can grow as large as basketballs but most are closer to softball size. They will float freely or attach to underwater rocks, limbs or dock supports. Amphibian and snail eggs are also in gelatinous masses but they are not firm-textured like bryozoans.

Although strange-looking, bryozoans are harmless and their presence usually indicates good water quality, as they are intolerant of pollution or muddy water. They can become a nuisance only if they attach to the insides of pipes or filters and impede the normal flow of water.



Bryozoans

Ombudsman Tim Smith will respond to your questions, suggestions or complaints concerning Department of Conservation programs.

Write him at PO Box 180, Jefferson City, MO 65102-0180, call him at 573-522-4115, ext. 3848, or e-mail him at [Ombudsman@mdc.mo.gov](mailto:Ombudsman@mdc.mo.gov).



baited “hair snares” made of barbed wire to gather hair for DNA analysis. The resulting data will help biologists get better estimates of how many bears Missouri has and the ratio of males to females. It also will provide information about movement patterns, population densities, habitat preferences and overall numbers of Missouri bears. This information will help the Missouri Department of Conservation (MDC) develop a scientific management program that includes regulated hunting. The goal is for bears to continue to thrive and expand into suitable habitats while minimizing conflicts with people.

Landowners in eastern and southeastern Missouri who have seen bears on their property are encouraged to contact MDC for possible participation in the study, which is a joint effort of MDC, the University of Missouri-Columbia and Mississippi State University. It is funded through the Federal Aid in Wildlife Restoration Fund with help from Safari Club International.

MDC has an interactive Web page about the bear research project at [www.fwrc.msstate.edu/carnivore/mo\\_bear/](http://www.fwrc.msstate.edu/carnivore/mo_bear/).—by Jim Low

## Elk Released From Holding Site

Missouri’s 34 restored elk, plus five new calves, were released June 1 from their 3 acre holding site at the Conservation Department’s Peck Ranch Conservation Area. The release followed final approval of stringent health-testing protocols by the Missouri Department of Agriculture.

The Peck Ranch Refuge Area will remain temporarily closed to the public to allow the adult elk and new calves time to acclimate to the area with a minimum of human disturbance.

We believe that additional cows remain pregnant with calving expected.

The 34 adult elk and five newborn calves have been fitted with radio collars as part of a cooperative research project with the University of Missouri. The collars will help researchers track the elk’s health, movement patterns and preferred types of vegetation. The Rocky Mountain Elk Foundation provided funds for the collars. The research project is being partially funded by the Wildlife Restoration Program administered through the U.S. Fish and Wildlife Service.

“Thanks to successful habitat restoration and

citizen, landowner and partner support, elk are back in Missouri after more than a century,” said MDC Deputy Director Tom Draper. “Citizens deserve credit and should be proud. We will continue to keep the public informed as this project continues.” For more information on elk restoration efforts, visit [mdc.mo.gov/node/11350](http://mdc.mo.gov/node/11350).—by Joe Jerek

## Be Bear Prepared

With the Show-Me State’s bear population slowly increasing, Missourians who spend time outdoors need to become bear aware.

The first step is knowing where you are likely to encounter bears. Bear sightings have been confirmed in approximately two-thirds of the state’s 114 counties. However, 90 percent of the state’s bears live south of Interstate Highway 44. Within that area, bear sightings tend to be around Taney and Ozark counties in the west and Iron, Reynolds and Washington counties in the east.

Bears have a natural fear of humans, so chance encounters with bears usually are brief, ending when the bear realizes a human is near and retreats. However, accidental bear meetings can be dangerous if the bear is startled or cornered or if a person gets between a sow and her cubs.

To avoid surprise meetings, talk with companions, whistle or fasten a cowbell to your backpack or clothing. Bears’ eyesight is poor, and they sometimes don’t recognize humans, even at close range. At such times, a bear often rears up on its hind legs. This is not a threat, but an attempt to use its eyes and nose to their best advantage.

If you see a bear that has not noticed you yet, leave the area quickly and quietly. A bear on a narrow trail may feel cornered. The best strategy here is to step off the trail on the downhill side and leave the area quietly. Do not make sudden movements or run.

When threatened or defending cubs, black bears often make huffing sounds, pop their jaws or beat the ground with their front paws. This is a warning that you are too close. Black bears also make mock charges, rushing at intruders and then retreating. People who take these hints and withdraw immediately almost always avoid further trouble.

Although attacks by black bears are rare, they do occur. Black bears can run much faster than humans, and they are excellent climbers. Consequently, fleeing or climbing a tree is pointless.



Elk calf on Peck Ranch CA



The most effective strategy is to fight back with whatever you have—a knife, a rock, a stick or any other weapon. Black bear attacks have been repelled by people using nothing more than their fists. Striking a bear around the face is most effective. Pepper spray also can stop a bear attack.

Aggressive bears usually are ones that have become accustomed to humans. This usually occurs through feeding. Never feed bears or allow them to raid trash, livestock feeders or other human food sources.

If you encounter an aggressive bear, contact a conservation office or your local sheriff's department immediately. The Conservation Department has specially trained employees to deal with problem or aggressive bears.

For more information about living with bears, visit [mdc.mo.gov/node/4607](http://mdc.mo.gov/node/4607).—by Jim Low

## Maximum Fine in Zebra Mussel Case

An Independence man received the maximum fine for introducing zebra mussels into Smithville Lake last year. The man pleaded guilty in Clay County Circuit Court to a charge of transporting a prohibited species. The judge imposed a fine of \$1,000 and six months of probation.

The case is the first prosecuted under a provision in Missouri's *Wildlife Code* designed to stop the spread of invasive species. It began on June 28, 2010, when fisheries workers with the Missouri Department of Conservation (MDC) discovered adult zebra mussels on a private boatlift during a swimming inspection of the Camp Branch Marina. An investigation by Conservation Agent Scott Stephens revealed that in October 2009, the defendant moved the boatlift from Lake of the Ozarks, where zebra mussels already were established.

The U.S. Army Corps of Engineers (Corps) and MDC immediately removed and decontaminated the lift. MDC, in cooperation with the Corps, Clay County Parks and Recreation and the City of Smithville, used a copper-based algae killer to eradicate the zebra mussel infestation in August 2010. The Corps continues to monitor the lake for residual zebra mussels. None have been detected so far.

For information about how to identify invasive species and how to avoid spreading them, visit [mdc.mo.gov/node/4086](http://mdc.mo.gov/node/4086).—by Jim Low

## Did You Know?

We work with you and for you  
to sustain healthy forests.

### MDC Partners With Rural Fire Departments

- » **More than 90 percent** of the wildland fires throughout the state are primarily contained by rural fire departments.
- » **776** rural fire departments statewide have agreements with MDC to receive equipment to help wildland fire suppression.
- » MDC has agreements with the USDA Forest Service to deliver surplus federal equipment to rural fire departments to help suppress wildland fires.
- » The Rural Forest Fire Equipment Center hub is located in Lebanon, Mo.

### FEPP—Federal Excess Personal Property

- » Equipment is loaned to fire departments through this program.
- » **844** vehicles worth more than **\$25 million** have been distributed to fire departments throughout the state.
- » More than **\$2 million** worth of smaller equipment such as generators, trailers and firefighting hand tools have also been given to fire departments statewide.
- » Equipment is on loan to the fire departments, and it must be returned to MDC when the items are no longer usable.

### FFP—Firefighter Property

- » When certain conditions are met, fire departments are given ownership of equipment through this program.
- » **519** vehicles worth more than **\$17 million** have been provided to fire departments.
- » The title to these vehicles will be turned over to the fire departments after four years of “response ready” use.
- » **342** generators worth more than **\$3 million** have been provided to fire departments.
- » **71,189** items such as emergency medical supplies, various small fire fighting items and miscellaneous equipment with a value of more than **\$10 million** have been issued to fire departments.

### Additional Benefits of Both Programs

- » Fire departments often receive donations to further equip the vehicles.
- » Fire departments usually pay very little.
- » Vehicles and equipment improve the ability of rural fire departments to respond to wildfires.
- » The distribution of vehicles and equipment enhances the relationship between MDC and rural fire departments.

### Contact Information

Rural Forest Fire Equipment Center, 417-532-7904

John Lindesmith, Excess Property Coordinator, [John.Lindesmith@mdc.mo.gov](mailto:John.Lindesmith@mdc.mo.gov)

Ben Webster, Forestry Field Programs Supervisor – Fire,

[Ben.Webster@mdc.mo.gov](mailto:Ben.Webster@mdc.mo.gov)



A soggy western kingbird waits out a rain delay at Kauffman stadium.



by LARRY RIZZO  
photos by NOPPADOL PAOTHONG

**IT IS LATE FEBRUARY SOMEWHERE SOUTH OF THE U.S. BORDER.**

July 2011 Missouri Conservationist 9

OK, maybe songbirds don't follow the sports calendar, but in Kansas City many generations of western kingbirds are inextricably linked to a major league baseball team and its stadium. Their life history is intertwined with the game of baseball. And is it not appropriate that a bird called king chooses to raise its young at the home of the Kansas City *Royals*?

### REGAL UNDERSTATEMENT

The western kingbird is a flycatcher, kin to birds like the eastern phoebe and the more glamorous scissor-tailed flycatcher. The name "kingbird" is derived from a small bright-orange patch of feathers atop the bird's head. This "crown," however, is seldom visible to an observer, and is only flashed on occasion, often in a display of aggression. Although not dazzling in appearance, the western kingbird is a handsome bird with yellow breast, olive-gray back and a black tail bordered by contrasting white edges. A dark line extending through the eye gives the bird somewhat of a masked appearance.

Some birds such as the western kingbird, below, are expanding their range. However, many other species are declining due to habitat loss and other factors.

Two species of kingbird are found in Missouri, the very common eastern kingbird with a state-wide distribution, and its less common western cousin. Although western kingbirds can be found in southeastern Missouri and St. Louis where a different baseball bird resides, they are most common on the western side of the state. Both kingbird species are birds of semi-open country, roadsides, fields and agricultural land wherever there are enough scattered trees to provide hunting perches and nesting sites.

### MAKE WAY FOR THE KING

Western kingbird populations are secure, unlike many other migrant songbirds, which are facing declining populations and are species of conservation concern. The bird even seems to be increasing its range. In a strange-sounding twist, this species has benefited historically both from the planting of trees and the elimination of trees in other parts of its nesting range. In the northern Great Plains, for example, the planting of trees in small towns and farmsteads







The “crown” of bright-orange feathers atop the kingbird’s head is only flashed on occasion, often in a display of aggression.

on the prairie allowed the western kingbird to expand eastward. In other areas in the southeastern part of its breeding range, the clearing of forested land along with the proliferation of utility poles and wires made things more suitable for the birds.

Both kingbird species are highly territorial and will aggressively defend their nesting areas against other birds, particularly predatory ones. Kingbirds, along with red-winged blackbirds, are the species most commonly seen “dive-bombing” much larger birds such as red-tailed hawks, turkey vultures and crows.

## THE BIRDS OF SUMMER

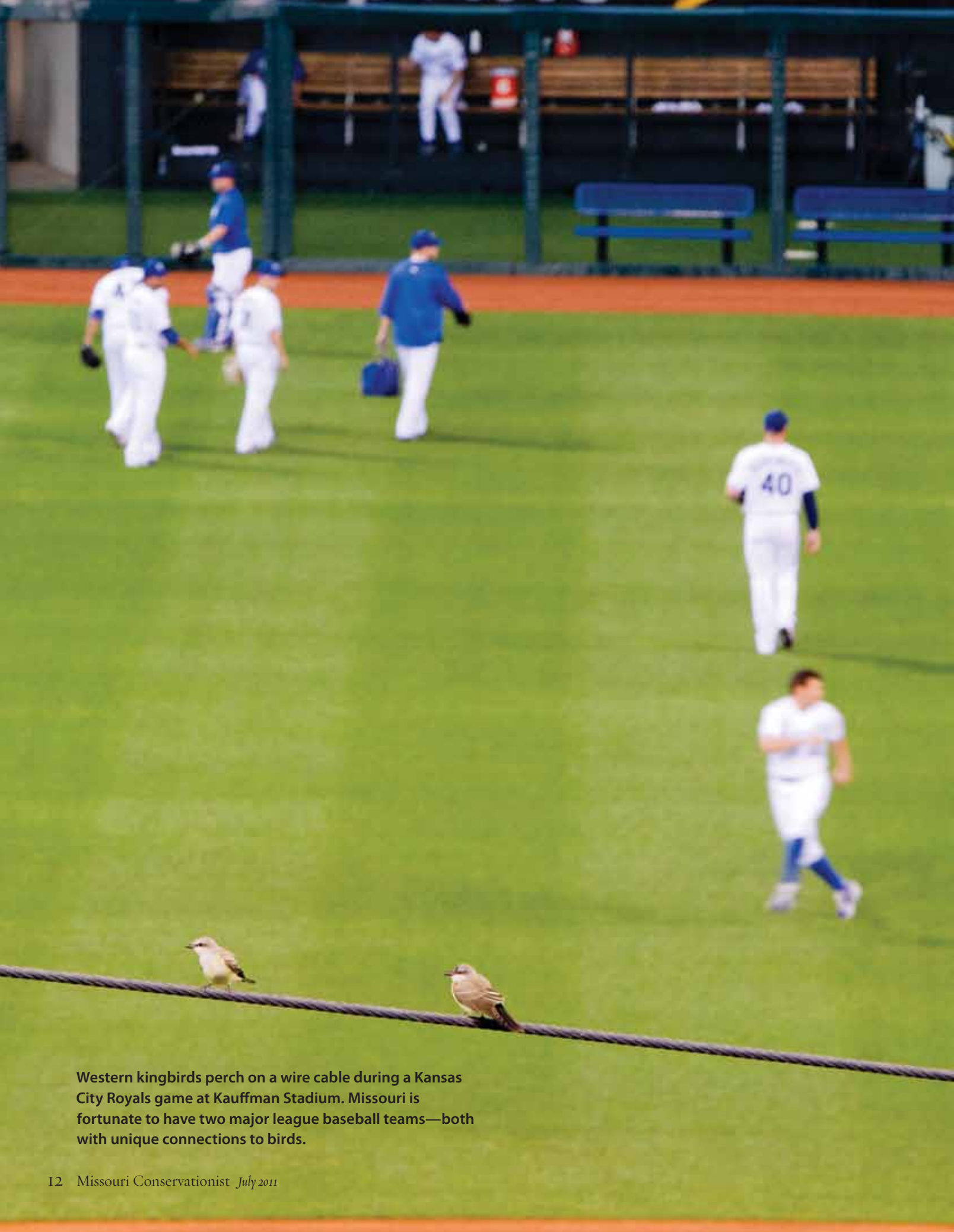
The western kingbird is often found in closer proximity to humans than eastern kingbirds. It can sometimes be found nesting in the parking lot islands of large shopping centers, hospitals, airports or other places with large expanses of parking lot interspersed with landscaping trees. However, birders are well aware of the bird’s affinity for two distinctly human environments—power substations and baseball fields. Both settings provide ample secure structures to place a nest, but it is baseball—particularly night baseball—that these birds especially seem to enjoy. In late spring and summer the powerful stadium lights attract countless flying insects, a bounty of easy pickings for birds rearing young. While baseball fans are watching the center fielder catch a fly, western kingbirds are often overhead doing the same thing.

At Kauffman Stadium, the kingbirds begin



nesting near the end of April. During this time they are noisy and gregarious as males establish and defend territories and attract mates. Much of this activity focuses around the rows of small ash trees that border the parking lots outside the stadium. In 2010, at least three kingbird nests were found in these trees and others probably nested in less visible locations including the stadium light towers. If you are especially observant and fortunate, you may witness dramatic aerial courtship and territorial displays by the male birds. In these performances, birds fly almost straight up, then plunge downward

**When insects are abundant, kingbirds produce more eggs and nestlings are fed more frequently and grow faster.**



Western kingbirds perch on a wire cable during a Kansas City Royals game at Kauffman Stadium. Missouri is fortunate to have two major league baseball teams—both with unique connections to birds.



with sudden stalling maneuvers combined with fluttering and vibrating of wings and feathers.

Soon the birds begin making appearances inside the stadium during games. They are even more conspicuous after their young hatch. With many hungry mouths to feed, the birds take advantage of the insects drawn to the stadium lights. Studies have shown that when insects are abundant, kingbirds produce more eggs and nestlings are fed more frequently and grow faster. This makes Kauffman Stadium valuable avian real estate for a flycatcher.

## A GAME FOR ALL SPECIES

Attending games at Kauffman Stadium through the years, I always enjoyed watching a variety of birds. Kingbirds are by no means the only birds to take advantage of the plentiful supply of flying insects. Chimney swifts, kestrels (small falcons), nighthawks and several species of swallows are all entertaining and graceful insect hunters that frequent the ballpark. But for more than a decade, it was the western kingbird that I found particularly interesting. While most of the other “baseball birds” tend to navigate the airspace of the nosebleed seats, the kingbirds like to get right down where the action is.

Perhaps the most favored perching and hunting sites at Kauffman Stadium are the two cables that hold up the screen behind home plate. From here, the birds launch their aerial assaults on any hapless insect that enters their airspace. It seems the birds seldom miss, even when the quarry’s flight is as erratic and evasive as a moth. At times the kingbird’s pursuits actually take them onto the infield. On several occasions, I have even seen the home plate umpire step out to call time as a kingbird dove after an insect in front of a batter just as a pitch was about to be delivered. There are some risks involved with such foraging, but so far no kingbird has ever met up with a thrown or batted ball during a game.

## THE OFF-SEASON

As a biologist, I find myself marveling at the ways this bird has adapted to my favorite game. Their foraging habits and schedule must be quite different when the team is on the road. At some level, I imagine they must be glad when

**IT IS BASEBALL—PARTICULARLY NIGHT BASEBALL—THAT THESE BIRDS ESPECIALLY SEEM TO ENJOY. WHILE BASEBALL FANS ARE WATCHING THE CENTER FIELDER CATCH A FLY, WESTERN KINGBIRDS ARE OFTEN OVERHEAD DOING THE SAME THING.**

the Royals begin a homestand and they see the return of the crowds—knowing it also means the return of the lights and the insect feast they bring. I wonder how this schedule of attending night games affects the birds’ internal clock? Flycatchers are not nocturnal birds. If play on the field runs late, kingbirds can still be seen hawking insects well after dark. How do they adjust to this schedule? Are they tired the next day, as perhaps many of the fans are after getting home late and getting up for work the next day? Do they sleep in?

The kingbird’s baseball season doesn’t last as long as the Royals. By early August, young kingbirds are raised and the birds are no longer visible at the stadium. Adults head south first, followed a bit later by the juveniles. I often ponder the wildly contrasting life these “birds of summer” must lead in the off-season. Like many young major leaguers who play winter ball in Mexico, the Caribbean, or Central and South America, western kingbirds spend their winters in warmer climates. After three months of crowds, noise and bright lights, the birds begin the southward journey to spend the winter somewhere from the Pacific side of southern Mexico southward to Costa Rica.

They play winter baseball in those countries, and I like to think that the Kauffman Stadium birds are down there hanging around a ball field somewhere in Central America, taking in a game. Since they are no longer raising young or defending a territory and have only their own mouths to feed, life is slower-paced. Do they miss the action of summer up north? Did they grow accustomed to fireworks, “Let’s Go Royals” and “Take Me Out to the Ballgame”?

Now if only while they were down there during the winter months they could scout out a good shortstop prospect.... ▲





Last July, members from the Kansas City Urban Ranger Corps took a three-day float trip on the Current River. The Missouri Conservation Heritage Foundation (MCHF) helped to sponsor the trip. To learn more about MCHF, visit [www.mochf.org](http://www.mochf.org).





# Opening *the* Outdoors *to* Everyone

---

THE IMPORTANCE OF CONSERVATION EDUCATION FOR URBAN YOUTH.

---

by BRANDON POPE

**T**HE SANDY TRAIL THROUGH PINE trees and over sand dunes was only 30 minutes from my home in the city, but the strange beauty of the Indiana Dunes National Lakeshore seemed like the other side of the world. I was 8 years old, and I'd never traveled beyond my neighborhood. Growing up in Chicago, I was accustomed to sights and sounds associated with city life. For me, entering a place devoid of concrete and streetlights was new and fascinating.

We were walking along the trail and I saw what I believed to be a large dog. But unlike the dogs at home, this one didn't bark. The tan animal was large, with a head shaped like nothing I'd seen before. I stopped one of the leaders of our group and asked him, "What sort of dog is that?" He smiled down at me and said, "That's a doe, Brandon, a female deer."

For me, the deer sighting was the highlight of the trip and upon returning home I wanted to learn more about deer and other wild animals.

I believe that everyone involved in conservation work can trace back to one profound moment when their deep fascination with nature began. This was my aha! moment in May 1990, on a sand dune in northwestern Indiana.

Today, I lead others to nature's mysteries—from Current River float trips to viewing wildlife in Kansas City's heart—as an MDC education specialist. I hope to ignite that same wonder and curiosity in young people, especially those from city environments.

My fascination with wildlife was ignited but was difficult to build upon because, where I grew up, wildlife was rare and my family did not have a tradition of outdoor exploration. I know the same is true for many students who pass through our nature and outdoor skills classes at the Anita B. Gorman Discovery Center, in Kansas City's urban core. The wetland, prairie and woodland landscaping in the outdoor gardens there display wildflowers and wildlife that some have never seen or thought of before. It's important for us to find a way to nurture that growing interest.

## AHA! IS ONLY THE BEGINNING

I was blessed because my annual camping trips to Indiana Dunes with a church group became my opportunity to learn about the outdoor world. Later, I became a counselor at a summer camp that specialized in exposing inner-city youth to the outdoors. For many of them, like me at their age, it was their first time in an en-



**Last July, Brandon Pope (second from right) helped lead a three-day float trip for 24 Urban Ranger Corps members from Kansas City. Rangers learned how to canoe, fish and camp, and they discussed the differences between their environments in the city and on the river.**

tirely new environment. Some were instantly captivated while others questioned the logic of leaving the comforts of home to live for a week in a cabin with bunk beds and daddy-longlegs.

As a counselor, I learned how to ease their fears and capitalize on their curiosity. I found that one interesting fact or story about a critter or plant could make a child view the subject in a positive light. I also discovered that if I found a way for the child to place the object someplace in the context of their lives, they would always remember the lesson.

One example involved a hike amongst sassafras trees. Sassafras root was used to create root beer, and when I snapped a root, the familiar scent of root beer was instantly recalled by the children. Furthermore, the children were able to identify sassafras by the mitten-shaped leaves because, coincidentally, they are the same shape as the state of Michigan on a map.

### NATURAL ENTHUSIASM

My interest in animals led me to pursue a career as a veterinarian. However, as an animal science major, I worked three summers as an in-

tern at the Cleveland Metropark Zoo. Though I was able to work with every animal in the zoo's extensive collection, I found I most enjoyed talking with guests about the care and personalities of the animals. Once again, I discovered how fulfilling it was to share nature with others. So I changed course. My graduate studies focused on human-wildlife interaction and outdoor education in urban settings.

Later, I assisted with a study in Kansas City that evaluated how inner-city children perceive wildlife. We wanted to know if their outlook could be changed by an education program. We interviewed the children both before and after the program. Once a week for four months, the children learned about ecology with a focus on urban plants and animals. We discussed habitats, tree identification and food chains. At the end, we found that the children were far more positive toward wildlife. Even the children with the most negative viewpoints before the class had an improved outlook. This was important to me because these were children from urban areas and, like me, they were not afforded the opportunity to learn much about the natural





world. After the study I knew that environmental education had to be part of my future career.

I was hired as an education specialist at the Anita B. Gorman Discovery Center in January 2010. I now have the privilege of teaching hundreds of students from the Kansas City metropolitan area about nature and wildlife management.

## MAKING CONNECTIONS

One of my favorite events as an MDC education specialist was helping to lead a three-day July float trip for 24 boys with the Urban Ranger Corps. The Urban Ranger Corps is a program that provides summer jobs to high school-aged boys in Kansas City. Through these jobs the boys also learn life skills such as punctuality and teamwork.

Canoeing and camping involved skills and surroundings that were foreign to many of the Rangers. Some were anxious about living outdoors for three days. As the flotilla pushed off of the banks of the Current River, no one knew what awaited the group as it traveled down the river. At first, it seemed as if the canoes were able to find every log and gravel bar. For some of the boys, this only confirmed the worries they had prior to the trip. But with enthusiasm and knowledge, Discovery Center staffers guided them past their fears. The boys all became adept at maneuvering their canoes.

One of the most profound moments during the trip occurred the first night beside the campfire on the gravel bar. The boys discussed the differences between their environments in

the city and on the river. Although not all of the boys were enamored by the outdoors, the majority said that they appreciated the serenity found in nature. Stories about birds and reptiles seen that day were retold as friends enjoyed the simple joy of sharing a campfire. They talked about the day's fishing and their first catch of goggle-eye and smallmouth bass.

But there are outdoor lessons we can teach within the city, too.

In March, noted author and ornithologist John C. Robinson made a presentation at the Discovery Center and also led a birding hike for youth at the Burr Oak Woods Conservation Area in Blue Springs. Robinson's book *Birding for Everyone* focuses on how mentors can foster an appreciation for birds in children of color. Light the spark and fan the flame to help urban children learn about the natural world, he said, even if it's as simple as understanding birds that come to a backyard feeder.

We offer the same outreach daily at the Discovery Center by teaching children that there are many paths to nature and they're open to all.

When as a child I saw a lone whitetail deer at the Dunes Seashore, I had no idea that it would lead me to teach others about wildlife, forests, fishes and prairies. I am glad that it did, and I watch the faces of the young people we serve, searching for that "aha!" expression that tells me nature has touched their hearts, and that they want more. I look forward to helping them find it. ▲

**Brandon Pope shows school children around Burr Oak Woods Conservation Nature Center. As an MDC education specialist, Pope helps urban youth make lasting connections with nature.**





# The Wright Quail Management







NOPPADOL PHOTONG

Quail

## Bold techniques lead to big results.

by JEFF ESELY • photos by DAVID STONNER

**I**T WAS A CHILLY JANUARY AFTERNOON, AND I was trekking thru several inches of snow on my way back to the truck. Along the way, I encountered the proverbial fork in the road. Should I continue to follow the farm lane back to the truck, or would it be better to huff it straight through the woods? Sticking to the lane would be the easier option, as bisecting the woods meant crossing several ravines.

Normally, I would have opted for the less demanding route, but this particular block of woods was part of a transformation, and I hadn't seen the interior since the thinning was completed nearly four years prior. Besides, the opportunity to hunt for signs of wildlife in the snow was too much to pass up.

### Growing, Burning and Cutting for Quail

This was the farm of Dr. William and Gail Wright. Not your typical landowners, the Wrights raise and train setters, and the primary objective for their 680 acres is to support bundles of quail. They started assembling their

Private Land Conservationist Jeff Esely (left) and landowners Gail and William Wright



farm in the mid-1980s and then went to work converting the fescue fields to native grass.

Throughout the 1990s the Wrights diligently implemented their prescribed fire regimen on the fields. Then, in 2001, one of my predecessors suggested to William that he also consider burning the woods. Needless to say, the prospect of expanding his acreage of usable quail habitat was too much to resist. From that point on, much of his 400 wooded acres was burned every 1–2 years.

I began working with the Wrights in 2006. William told me that his objective for the woods was to create a savanna-like habitat that would support quail. At that point, much of his timber had seen fire four to five times during the previous six years, and the woody understory layer was largely eliminated. In its place was a decent stand of herbaceous forbs and native cool-season grasses. However, it was still fairly shaded on the ground, so I suggested to William that his woods were ready for phase two of the transformation saga. The previous burning had laid the groundwork, but it was now time to sharpen the saws! In typical William Wright fashion, he jumped on the idea, and within a few months, 50 acres of once closed-canopy woodland was thinned by nearly half.

**William Wright sprays herbicide along a feathered field edge for quail habitat at his farm.**

### **The Payoff**

*Now back to that January afternoon:* I had inspected this woodland stand several times over

the past few years. However, these evaluations were always from the field edge, and usually from the seat of my truck or William's utility terrain vehicle. Today I had the opportunity to see what was going on deep in the center of the woods.

The extra sunlight and continued burning after the thinning had achieved the desired effect, as the diverse ground layer of grasses and forbs was definitely more developed. In fact, it looked perfect for bobwhites, and I thought to myself, "What if all of William's native warm-season grass fields looked like this? He might have to implement some kind of quail population control effort!" There were scattered patches of blackberry and sumac, but the woody sprouts weren't much of an issue. Overall I was very pleased with the progression of this woodland.

The first thing I noticed with respect to wildlife was the glaring presence of each black oak in the woods. They were the primary nut producers that fall, and it appeared as if some-





one had run a rototiller around the dripline of each one. I had wondered how heavily the deer would use an open woodland habitat, but each of these track-covered circular feed lots quickly put that question to rest!

After a few minutes of walking, I found myself well into the interior of the woodland. Pausing upon a blackberry thicket, I found several piles of rabbit scat deposited on the snow. Upon further examination, I noticed several entrance paths leading into the thicket. Earlier, I'd seen a number of similar tracks in the snow, but assumed they were from squirrels. It was now obvious that the cottontails had colonized this stand.

With a sense of gratification, I resumed my walk. However, not three steps later there was an explosion of feathers from the blackberries,

as at least 10 bobwhites made their escape. I thought to myself, "Wow, I must be 200 yards from the nearest field and we've got cottontails and bobwhites making themselves right at home." William had told me that they were beginning to find birds in the woodland, but it was still exciting seeing it firsthand. It was one of those occasions that reminded me of why I do this work.

Several minutes later, I found myself back at the truck, but not before encountering more signs of life—including a second covey! While exhausted from trudging through the snow, I was inspired by what I'd seen. Through their diligent efforts and persistence, the Wrights had transformed their woodland and achieved their objective. It made me wonder why more people weren't doing this on their property. William and Gail are unique in that they seem to do things in a big way, but surely other landowners could achieve similar results with modest efforts.

Each piece of land and landowner has potential, and the lessons learned here will certainly be useful in helping others achieve their own goals. As a private land conservationist, I never know what the next opportunity might be, or when the next "William Wright" is going to call—but, I look forward to the challenge. ▲

**The Wrights' dog, Sue, goes on point in recently cleared woodland.**



Aerial photos show the changes on the Wrights' woodland restoration area (outlined in yellow). Top, in 2005, before timber improvement, and bottom, in 2010, after timber thinning.










# Modern Day Treasure Hunting

## *A Geocaching Adventure*

by HEATHER BODENDIECK • photos by DAVID STONNER



**I** HAVE A CONFESSION TO make: I am GPS challenged. Still, when the opportunity came up for me to take my boys on a modern-day treasure hunt, I didn't let that stop me. I had never heard of geocaching before, so I was surprised to find out just how popular it is. There aren't many family activities that are diverse enough to accommodate a variety of budgets, activity levels and schedules. Geocaching fits the bill on all levels. All you need to participate is a sense of adventure and a GPS unit. Bug spray and sunscreen aren't a bad idea, either.

In geocaching, participants hide objects to be found by others with the aid of a GPS unit. The latitude and longitude coordinates of the geocache are posted online, along with any additional clues. By typing the coordinates into a GPS device, geocachers are led to the hidden treasure, or "geocache." Some geocaches are simple to find, while others involve multiple stages and activities such as rappelling or rock-climbing.

### Digital Tips and Treasure Trails

First I looked at the Conservation Department's geocaching page at [mdc.mo.gov/node/3379](http://mdc.mo.gov/node/3379), a good resource for basic information on the

game, as well as regulations for conservation areas. Then I visited [www.geocaching.com](http://www.geocaching.com), which allows you to search for caches in your area. I discovered that there were dozens of treasures to be found in my community—and here I'd planned to drive a couple of hours for our adventure!

Armed with two sets of coordinates and a borrowed GPS, my family set out on our treasure hunt. Our first stop was Rockwoods Range, between Pacific and Eureka in western St. Louis County, a five-minute drive from our house. I pass both the range and the nearby Rockwoods Reservation, just north of the range, at least once a week, but I had yet to stop and check them out.

We parked our car at the range and piled out. Excited, a little nervous, and not quite sure what to expect, we entered our coordinates into our trusty GPS and were off on our adventure.

We walked down a pleasant trail, wondering why we had never visited the Rockwoods areas before. They were enchanting and so close to home. Then we reached a point in the trail where the GPS unit signaled for us to go off the trail. I paused, looking into the woods. I am constantly reminding my boys to stay on the path. I knew that I was allowed both on-trail





**The Bodendiek family begins their geocaching adventure.**

**Geocaching is an outdoor treasure hunting game. Players locate hidden containers, called geocaches, using GPS-enabled devices and then share their experiences online.**

and off-trail access to the area, but I'd spent so much time at parks that I had to give myself permission to break the "rules" in my own head. As silly as it seemed, it was exciting to treat this area as the wild space it was.

Most conservation lands are fully accessible, but check your location's regulations before you head out. The two Rockwoods areas are a good example of why this is important—though close to one another, Rockwoods Range allows visitors to leave the trail system, whereas Rockwoods Reservation does not. Regardless of official rules, always be respectful of an area's flora and fauna.

I gave my husband a mock "bail me out if I get busted" look and headed into the woods. That was all the encouragement my boys needed. They were giddy; not only were they being allowed to go off the trail, Mom was leading the way. We were truly on an adventure now.

We came through the woods and into a clearing, and we soon reached the geocache coordinates. I was certain we were in the right spot. The boys eagerly looked for the prize, even though none of us had any clue what the cache might look like if we found it. While they bounded around the clearing, I experimented with moving in different directions to make sure that the animated car that represented me on the GPS lined up exactly with the "finish line" on the screen. (I had just borrowed a basic vehicle-type GPS for our first adventure. While more than sufficient for our level of adventuring, practicing with the unit beforehand would have been a good idea. There is a range of GPS systems available, but most geocaching requires only a basic system. Don't be put off because you think you'll need pricey equipment to play.)

When I moved around, I found the GPS leading me closer to a





## Resources

- The official geocaching website is [www.geocaching.com](http://www.geocaching.com). Basic registration is free, and allows you to search for geocaches in your area and share your experiences.
- Then search for conservation areas throughout the state at [mdc.mo.gov/node/8911](http://mdc.mo.gov/node/8911).
- Find handy information on identifying poison ivy and differentiating it from other similar plants at [mdc.mo.gov/node/4686](http://mdc.mo.gov/node/4686).

gnarly old tree with roots that just seemed to be made for hiding treasure. Unfortunately, there was nothing there; someone had removed the prize. While it is poor form in geocaching etiquette not to maintain caches, or to remove them without posting a notice, these things do occasionally happen. Luckily, it doesn't take away from a good day on the trail, and there's always another prize to hunt down! If you don't find a cache where you should, please report back to the website so that it may be replaced or removed from the listing.

### The Hunt Continues

Not to be deterred, we set off in search of our second treasure. This geocache hunt took us further down the trail. At one point, a harmless red milk snake raced across my eldest son's foot, to everyone's excitement. We also came across a spot where water was bubbling out of the side of a bluff and into a small pool of water. The snake might have been a highlight for my boys, but my favorite part of that hunt was stopping to watch a family of ducks in the spring-fed pond.

Once they pried me away from the ducks, we continued our search for the second cache. Eventually we reached the right spot, according to our GPS unit. Even though we were at

the exact coordinates, we searched to no avail. "What did the clues for this one say?" my husband asked, looking expectantly at me.

"Clues? I don't think there were any," I hedged. Truth be told, there might have been. I hadn't thought to check. (Now I understand that hints are an important part of this modern-day version of treasure hunting. Hints are often available on the geocaching site. Some have to be decoded or deciphered like a riddle.)

We were having a good time, but we were still empty handed. Our pirate crew was ready to find treasure. It was time to get serious about finding some geocaches. We gave up on the second hunt and returned home to regroup.

Back at the house, I looked up several more geocaches around town on the geocaching website. There were a variety of options, so I narrowed my search by focusing on those with terrain and ease indicators of one or two—each cache was

**Most conservation lands are fully accessible, but it is important to check your location's regulations before you head out. Regardless of official rules, always be respectful of an area's flora and fauna.**



Red milk snake





rated in these areas on a scale of one to five. This time, I scrolled down the screen to decrypt the clues after jotting down the coordinates.

I was fairly certain I recognized the screen name of the creator of several of the caches. I clicked on the name and up popped a picture of my neighbors. I took comfort in the fact that if all else failed, I would go ask for their help. My boys would find a treasure one way or another!

### Treasure or Bust!

Our third attempt to find a geocache was in a park next to our subdivision. Instead of taking our usual dog-walking route, we followed our GPS unit's arrow through a field to the bank of a stream. We fanned out, me trying to align myself to the finish line on the GPS unit screen and the boys looking for anything that smacked of hidden treasure.

"What's this?" asked Blake, my middle son, as he leaned over to point at a sliver of white in a pile of wood. He reached down and removed a piece of wood to reveal a white Styrofoam box with the word "Geocache" written on it.



Smiles spread throughout the group. We had our first success! We eagerly lifted the lid to find a hodge-podge of "treasures" tucked inside: a gold binder clip, a plastic yellow monkey face and small toys. To my children, it was like the find of the century.

The boys each picked a prize, then replaced them with some other goodies for the next lucky treasure hunter to find. After carefully hiding the box again, we set out on our next adventure. Cache number four was missing, most likely a victim to recent flooding. But we did find a pool of tadpoles, which was just as exciting for our group.

Then we headed to another park in town—another spot I'd driven by before but hadn't yet visited. We were glad for the excuse to discover yet another new area. Its entrance offered up geocache number five, and the quick success renewed the boys' energy. They raced through the park to the clump of trees that seemed most likely to hold our sixth and final treasure.

We quickly discovered we were in the wrong spot as I once again tried to align myself to my GPS screen. A different cluster of trees, at the edge of a creek, yielded a round metal object full of dirt. We aren't sure if that was the cache or just a really cool metal thing that happened to be half-buried in the right place. My kids are calling it a win, though.

After putting the container back in a hidden spot, the boys played in what is now their favorite park. The boys convinced us to try for one last cache, but I navigated us to the wrong side of the river. Apparently I'm still a little GPS challenged.

And so our big adventure came to an end... for now. Early the next morning, my eldest son,

## Checklist

### PRE-OUTING:

- ✓ Review Missouri plant identification (I realized after the fact that my children didn't know what poison ivy looked like!).
- ✓ Have a general idea where the geocache is—relying too heavily on the GPS unit caused some initial frustration.
- ✓ Jot down any clues provided for finding the cache.
- ✓ Have backup geocache locations written down, just in case.
- ✓ Remember to bring bug spray and sunscreen.
- ✓ Wear appropriate hiking clothes, such as jeans and boots.
- ✓ Pack water, snacks and other hiking essentials.
- ✓ Make sure your GPS unit is fully charged. Bring extra batteries just in case.

### DURING THE OUTING:

- ✓ Remember that caches are usually stashed near a landmark of some sort, such as a large rock, gnarly tree, sign or cluster of trees.
- ✓ If you take a treasure from a cache, be sure to leave one for the next adventurer.
- ✓ Leave the cache as you found it.

### POST-OUTING:

- ✓ Do a tick-check!
- ✓ Log onto [www.geocaching.com](http://www.geocaching.com) to share your adventure with others or to report a missing or damaged cache.





Dylan, asked if we could go geocaching again. I promised him we'd go again soon. It seems we have been bitten by the geocaching bug.

### More to Come

The boys are already asking if we can participate in some of the more in-depth geocaching hunts. Our first step will be to master the one-step caches near home. We'll pick a weekend this summer and travel a little further for our next geocaching adventure. I've learned to bring not only the GPS coordinates, but any corresponding clues as well, to help us locate the geocache more quickly. And this time we'll pack a picnic lunch so we can stay longer and explore more.

It's refreshing to see the boys seeking a common goal. As excited as they were about geocaching, it was the little treasures they found along the way that made the best memories. If you were to ask my 5-year-old, Christopher,

what his favorite part of the day out exploring was, he'd tell you it was when they found a giant slug, that the caterpillars were cool, and that he liked the ducks because they were "really cute and quackish."

Geocaches change often, and some locations require special-use permits that may expire. Be sure to check for caches right before you go to ensure that caches are still active. For example, as of the printing of this article, there are no caches on the Rockwoods areas mentioned here. Other locations that my family visited may also have changed. Remember that the rules and regulations of the parks, conservation areas, and public and private areas you visit should always take precedent over anything you find on a geocaching site. Not all caches are placed with permission, and it is your responsibility to ensure that you are not trespassing or breaking any rules. ▲

**The Bodendiek family finds a geocache at a city park in Eureka.**



## Red Fox

*Wildlife lovers can find this secretive, bushy-tailed and black-footed furbearer statewide.*



A FEW YEARS ago, a fellow named Kevin Brinker called to ask me if I would be interested in photographing a family of red foxes he had discovered residing under his barn near New Haven. I'd only seen a few red foxes in my lifetime so I was eager just to get a glimpse of the critters, let alone photograph them. The following weekend I stationed myself near Brinker's

barn in a hunting blind and waited to see what daybreak would bring. Shortly after sunrise, a tiny fox pup came out into the open and stared at my blind with youthful curiosity. The click of my camera shutter frightened it back into the shadows of the barn but it quickly returned for another look and soon became oblivious to my intrusion. Over the next two years I had many more encounters with the foxes at Brinker's, but I'll always remember seeing that first pup like it was just yesterday.

The red fox (*Vulpes vulpes*) is found statewide but is most common north of the Missouri River. Growing a bit larger than the gray fox, the red fox has a thick coat of red fur with whitish cheeks, throat and belly. Legs are adorned with black boots and the bushy red tail is streaked in black with a white tip. Red foxes prefer forest borders and adjacent open lands where they can pursue their favorite quarry: rabbits and mice. Other foods include birds, voles and even insects. One evening in early summer I sat in my truck and watched a new litter of pups gorging on fat June bugs under Brinker's garage light.

Red foxes mate in winter and litters are born by March or April, typically four to seven pups. By the time the pups reach 10 weeks old, they are tagging along on hunts with their parents. By fall, the young foxes are on their own, dispersing into new territory. A Missouri furbearer, red foxes are prized for their pelts and may be legally hunted and trapped (for information on trapping seasons and regulations, visit for [mdc.mo.gov/node/88](http://mdc.mo.gov/node/88)). The Conservation Department closely monitors the red fox harvest to ensure their population is sustained for future generations.

By midsummer of that first year I had photographed all of the pups, but I'd never seen one of the parents. It wasn't until the following year that I made my first image of an adult red fox at Brinker's property. It had just returned from an overnight hunt and was drenched with dew. While the new crop of pups had fully accepted my presence, the adult was extremely wary and disappeared under the barn only a moment after I captured its image. I found it funny that a piece of foxtail was lodged in its mouth just as I clicked the shutter. That evening as I reviewed the image, I felt a sense of completion to all of my visits to Brinker's barn. Along with countless photos of the pups, wrestling in the grass and napping in small patches of sunlight, I finally had a shot of one of the secretive adults.

—Story and photo by Danny Brown







## Fox Valley Lake

*Visit this pretty, quiet Clark County area for a long weekend of bass fishing and other outdoor fun.*



**LOOKING FOR A** great summer fishing trip? Hitch up your boat and head to Fox Valley Lake CA. Just a few miles northwest of Kahoka, this 2,158-acre area in three parcels is scenic and well maintained. However, it is surprisingly underused and harbors a big population of large, feisty bass just waiting to be caught.

The area's 108-acre Fox Valley Lake lies on the northeast and largest parcel. Aside from plenty of bass, the lake supports good populations of catfish, crappie and sunfish. Other fishing opportunities include a mile of the Fox River on the area's eastern boundary.

The northeast parcel offers comfortable camping and picnicking, too, with pads and potable water situated near a picnic shelter complete with a barbecue grill. Go ahead and fire up the grill, so it will be ready by the time you catch and clean your fish. Other amenities on this portion include a parking lot, a concrete boat ramp and fishing dock, all of which are disabled-accessible.

The middle, smallest parcel features two parking lots that serve the shooting and archery ranges. Both are available for recreational target practice, so be sure to bring your firearms and archery equipment.

You'll find several fishing ponds and parking lots on the large southwestern parcel, which lies along Highway 136.

In addition to fishing, camping and target practice, the area's diverse habitat types offers excellent birding, wildflower and wildlife viewing.

Forest covers 60 percent of the area and consists mainly of oak-hickory on the uplands. The bottomlands support mixed hardwood and softwood species, as well as a large stand of breezy pines, unusual for northern Missouri. Grasslands, including native prairie remnants, and a 13-acre constructed wetland as well as row crops and idle fields cover 40 percent of the area.

Area land care includes farming, haying, disking, terracing, water manipulation and controlled burning. In addition, the Conservation Department develops wildlife habitat with tree, shrub and grass plantings, food plots and timber harvests. Make a note of this habitat and project diversity. Plan to come back in the fall, winter and spring for good deer, dove, pheasant, quail, rabbit, squirrel, turkey and waterfowl hunting. As always, before driving to the area, visit the Web page below for the area brochure, regulations and map.

—Bonnie Chasteen, photo by David Stonner

**Recreation opportunities:** Birding, camping, canoeing, fishing, hiking, hunting in season, outdoor photography, wildlife viewing, and target and archery practice.

**Unique features:** One mile of Fox River frontage, a 108-acre lake and several ponds, concrete boat ramp, small camping area; disabled-accessible dock, several parking lots and restrooms ; recreational shooting and archery ranges

### For More Information

Call 660-785-2420 or visit [mdc.mo.gov/a8004](http://mdc.mo.gov/a8004).







# Hunting and Fishing Calendar

## FISHING

**OPEN** **CLOSE**

Black Bass (certain Ozark streams, see the *Wildlife Code*)  
5/28/11 2/29/12

impoundments and other streams year-round

Bullfrogs and Green Frogs Sunset Midnight

6/30/11 10/31/11

Nongame Fish Giggling 9/15/11 1/31/12

Trout Parks 3/01/11 10/31/11

## HUNTING

**OPEN** **CLOSE**

Coyote 5/09/11 3/31/12

Crow 11/01/11 3/3/12

Deer

Archery 9/15/11 11/11/11

11/23/11 1/15/12

Firearms

Urban Zones 10/07/11 10/10/11

Early Youth 11/05/11 11/06/11

November 11/12/11 11/22/11

Antlerless 11/23/11 12/04/11

Muzzleloader 12/17/11 12/27/11

Late Youth 1/07/12 1/08/12

Dove 9/01/11 11/09/11

Furbearers 11/15/11 1/31/12

Groundhog 5/09/11 12/15/11

Pheasant

Youth (North Zone only) 10/29/11 10/30/11

North Zone 11/1/11 1/15/12

Southeast Zone 12/01/11 12/12/11

Quail 11/1/11 1/15/12

Youth 10/29/11 10/30/11

Rabbits 10/1/11 2/15/12

Rails (Sora and Virginia) 9/01/11 11/09/11

Squirrels 5/28/11 2/15/12

Turkey

Archery 9/15/11 11/11/11

11/23/11 1/15/12

Fall 10/01/11 10/31/11

Waterfowl please see the *Waterfowl Hunting Digest* or  
see [mdc.mo.gov/node/3830](http://mdc.mo.gov/node/3830)

Wilson's (common) Snipe 9/01/11 12/16/11

Woodcock 10/15/11 11/28/11

## TRAPPING

**OPEN** **CLOSE**

Beavers & Nutria 11/15/11 3/31/12

Furbearers 11/15/11 1/31/12

Otters & Muskrats 11/15/11 2/20/12

For complete information about seasons, limits, methods and restrictions, consult the *Wildlife Code* or the current summaries of *Missouri Hunting and Trapping Regulations* and *Missouri Fishing Regulations*, *The Spring Turkey Hunting Regulations and Information*, *the Fall Deer and Turkey Hunting Regulations and Information*, *the Waterfowl Hunting Digest* and *the Migratory Bird Hunting Digest*. For more information visit [mdc.mo.gov/node/130](http://mdc.mo.gov/node/130) or permit vendors.



The caterpillars go camping.

## Contributors

HEATHER BODENDIECK has lived in Missouri since childhood. A full-time writer who loves the outdoors, she considers writing for the *Conservationist* the perfect blending of her two great joys in life. She lives in Eureka with her family and a houseful of pets.



JEFF EELY has been a private land conservationist with MDC since 2005. While he grew up in northwest Missouri, Jeff now lives in Troy and is responsible for Lincoln and Warren counties. An avid bow-hunter, Jeff spends much of his free time perched in a tree.

BRANDON POPE is an educational specialist at the Anita B Gorman Conservation Discovery Center in Kansas City. He enjoys a variety of activities including cycling, photography and cooking. He is committed to conservation and conveying the wonders of the natural world to children and diverse audiences.



LARRY RIZZO has worked for MDC for 22 years, the past 14 as natural history biologist in the Kansas City region. A native-born Kansas Citian, Larry and family reside in the urban area. He enjoys hunting and has a passion for canoeing, camping and fishing on Ozark streams. He is a helpless lifelong fan of his hometown team.



## Apply for Managed Deer Hunts

The Conservation Department offers numerous managed deer hunts for archery, crossbow, muzzleloading and modern firearms from mid-September through January. Youth hunts and special hunts for persons with disabilities are also available. These hunts are part of why Missouri is a great place to hunt.

For more information on managed hunt offerings and to apply, visit [mdc.mo.gov/node/2458](http://mdc.mo.gov/node/2458). You can also find more information in the Fall Deer and Turkey booklet available this month at permit vendors and MDC offices. Permits are available to successful applicants beginning Sept. 14.



## AGENT NOTES

*Great family memories are made in Missouri creeks.*

AS A YOUNG boy growing up in Osage County, my friends and I would head for the nearby creek during the summer months. Sporting a pair of old tennis shoes, cut-off jeans and a fishing pole, we would wade several miles searching for the deep holes which normally held lots of fish. We often used a yellow rooster tail to catch the green sunfish, a worm to catch a bullhead, or a freshly caught crawdad to catch a largemouth or smallmouth bass. The creek provided hours of entertainment for us, fish for our

dinner table, and memories that would last a lifetime.

With July being one of the hottest months, creeks still provide fun for the entire family. Whether catching a nice mess of fish, taking a dip to cool off, or flipping a rock, I recommend taking your family or friends out to a nearby creek this summer.

While enjoying the creek, keep in mind the fishing regulations. The daily limit and length limits vary for black bass and some other species of fish depending on the creek, stream or river in which you are fishing. The daily limit for all nongame fish is 50 in the aggregate. For complete information about fishing seasons, limits and methods, consult the *Wildlife Code* or your local conservation agent or visit [mdc.mo.gov/node/3104](http://mdc.mo.gov/node/3104). As always, remember to get permission before entering private property. Take time this summer to discover what Missouri's creeks have to offer.



Kurt Heisler is the conservation agent for Morgan County. If you would like to contact the agent for your county, phone your regional Conservation office listed on Page 3.





Subscribe online • [mdc.mo.gov/node/9087](https://mdc.mo.gov/node/9087) • Free to Missouri households



## “I am Conservation”

Brian and Tina Bernskoetter and their son Trent enjoy an evening of fishing at McKay Park in Jefferson City. “Urban lakes are a very convenient and easily accessible option for family entertainment. We always have fun, even when the fish aren’t biting. Plus, it is a great way to introduce kids to the outdoors in a familiar setting in town,” says Bernskoetter. “We make a game of looking for turtles poking their noses out of the water, and Trent loves to listen to the frogs croaking at sundown while the birds hunt insects on the lake. Fishing is a perfect way to spend time together on summer evenings and not a lot of planning is required.” Last year the Conservation Department stocked more than 144,000 keeper-size fish in 53 urban lakes and ponds. Conservation makes Missouri a great place to fish. To find a spot to fish near you, visit our online conservation atlas at [mdc.mo.gov/node/8911](https://mdc.mo.gov/node/8911). —Photo by David Stonner